

Your Complex Brain – Season 3 Episode 4 - Can Exercise Slow the Progression of Parkinson's?

Steve Iseman 00:00

[Your Complex Brain theme music] The thing that stops people with Parkinson's is fear. People walk out of their diagnosis, a different person than they were walking in. They, all of a sudden, feel vulnerable or weak or afflicted, even though nothing has changed on that day; they're still the same person. The only thing that has actually changed is that the need for exercise has increased.

Heather 00:33

[music continues] This is Your Complex Brain, a podcast all about the brain, the diseases that impact it, and the path to finding cures. I'm your host, Heather Sherman, and I have the great pleasure of working alongside the team at the Krembil Brain Institute in Toronto, Canada, a leader in brain research and patient care. In each episode, we'll take you behind the scenes into our clinics and research labs to meet the game-changers of the future. We'll empower you with the latest research to help you take charge of your own health. You'll also hear from people who are living with brain disease, as well as their loved ones and the care teams who support them. Join us on a journey to unravel the mystery of your complex brain. [theme music continues then fades out]

[energetic electronic music] Parkinson's disease is the fastest-growing neurological condition in the world. Here in Canada, more than 100,000 people are currently living with Parkinson's and 12,000 new cases are diagnosed each year. Today, we're going to talk about the latest science, looking at the benefits of exercise for Parkinson's. Can it slow the progression of the disease or alleviate some of the symptoms?

But first, we'd like you to meet Steve Iseman, founder of the Rigid Riders, a Toronto-based cycling group for people living with Parkinson's. Once you hear Steve's story, you can't help but feel inspired.

Steve Iseman 02:12

[bubbly electronic music] My name is Steve Iseman. I have Parkinson's. I've had Parkinson's for almost 11 years now, and I love exercise. I'm married. I have two boys, aged 22 and 24. I have a very supportive community around me to help me with my Parkinson's.

I started experiencing symptoms about 11 years ago. They were very modest to begin with. You know, I was having some difficulty typing and I talked to a doctor about it, which is, frankly, uncharacteristic for me to even bother dealing with these sorts of things. And it was suggested that I see a neurologist, and the neurologist, within less than a minute of working with me, said, "Yeah, you have Parkinson's."

I think, like many people in my situation, I'd come out of the doctor's office with a diagnosis that I didn't like, and I just didn't feel like talking about it, and I sort of followed that course for five years of not talking about it and that meant not telling almost anybody, including friends and family. It was a lonely time.

But something snapped me out of it. I attended a charitable event to raise funds for Parkinson's research and it was a cycling event, and I noticed that I was one of the only people there with Parkinson's and what I had been reading and hearing about was just how beneficial exercise was, so it drove me crazy. So, I resolved that the next year I was going to try to empanel a team of people with Parkinson's to join me at this event. I gave myself liberty to talk about it. I started telling everybody, and part of my inspiration was I felt that there were lots of people like me who were either hiding or

disconnected or not part of a community and certainly not part of an exercise program and, you know, I really wanted to gather as many of these voices together, first, to convince them to be more athletic, but also to help advocate for Parkinson's interest. Our voice is too mute on this point right now and we're being overlooked with regards to funding resources and, you know, any role I can play to help with that is, I think, useful.

I started approaching exercise as, you know, my daily obligation. It became my medicine cabinet and the benefit that I get out of it is so obvious to me and I know this, on occasions, when I have to stop for one reason or another. I'll give an example of this: two years ago, I did a very long bike ride that was three months of constant motion, and I was feeling just wonderful during that time – so wonderful, in fact, I said, "Hey, I wonder if I can go med free." So, I tried it one day and it was a horrible failure but, you know, it does underscore that I was feeling good.

When the three months were over, travelling back home and dealing with obligations had me off the bike for about two weeks and my symptoms came back pretty strong. It felt like withdrawal. I got myself back on the bike, back into a daily routine, and I righted the ship. I had a couple of tests over the years and it's, incredibly, showing progress, not degradation. And what else can I attribute that to than regular exercise? [music fades out]

[gentle electronic music] In 2022, we rode across Canada from Victoria to St. John's, Newfoundland. My friend, Jim Redmond, and I were cyclists and we had the two other friends who helped take care of logistics, and we were on a mission to spread awareness of Parkinson's, but not generally to the public, although we did that incidentally. We were specifically looking for people with Parkinson's because, by my estimation, three out of four of them are disconnected from a Parkinson's community or support groups and a good number of them from any contact with the people or services that can assist them with their Parkinson's journey.

So, how do you find them? You know, they're not on any list so we determined that the only way really to find them was to dress ourselves in shirts that said who we were and what we were doing, have a big RV behind us with signs saying, "Come talk to us," and we found people everywhere. People were approaching us to ask a little bit about what we were doing, and so often—in fact, it was getting to be daily—within 20 seconds of talking to them they'd be in tears recounting their story or a story of a friend or relative. Crushingingly, many of them would say, "You're the first person that I've been able to talk to with Parkinson's." [music fades out]

[glitchy electronic music] It felt really good to be there at the right time because we could encourage them to connect with people and we knew who and how to connect with. We'd facilitate that. But what I discovered was that these people wanted to be found. They'd walked out of the doctor's office one day with a bad diagnosis, and they clammed up, but it wasn't a decision, and giving them this opportunity to talk about it seemed to be pretty cathartic for them.... and, frankly, for us, too.

The thing that stops people with Parkinson's is fear. I think that people walk out of their diagnosis a different person than they were walking in. Even though they've probably lived with their condition for 10 or 15 years before their diagnosis, they, all of a sudden, feel vulnerable or weak or afflicted, even though nothing has changed on that day; they're still the same person. The only thing that has actually changed is that the need for exercise has increased.

And one thing that I think is really important is, at that diagnosis, when they're having a heart-to-heart conversation with their neurologist, it would be so helpful if the neurologist was pointing them on a path towards fitness and exercise. [music fades out] And the next level above that is to say, "Oh, and here's some people that can help you on this journey," and to that extent, in the GTA, Greater Toronto Area, myself and a friend created a cycling club that we call the Rigid Riders and the notion is just that – if you're prepared to try getting on a bike, then we want to ride with you.

[bubbly electronic music] How Parkinson's has affected me, I probably wouldn't begin with physical symptoms. I would probably tell you that it has given me some direction and purpose with what I want to do with my life. I feel actually quite lucky. I'm working hard at this fitness but I think that I'm not only holding off symptoms; I think that I'm getting better. I'm improving.

I'm so convinced that this is beneficial to others that it gets me to shake off an introverted personality and actually go out and find people and talk with them and encourage them, which I find myself doing on an almost daily basis now. I am a better cyclist than I've ever been. I have a lot more focus in my life about what I want to do. I have a timetable now because there's things I want to get done. You know, I'm very hopeful for a cure for alleviating therapies but I don't want to put all my eggs in that basket. I am eager to get things done now. So, I don't have a bucket list anymore. I just have a to-do. [music fades out]

[gentle electronic music] If I'm on a bike, I'm doing my maximum and I find it gives me energy and frankly license to do playful things. I just got off the ski hill. I had the amazing fortune of being paired with a movement disorder specialist who got me—Dr Kalia—and, boy, it saved my life. Exercise is the thing that keeps the spring in my legs, keeps the speed in my muscles, and frankly the smile on my face. When I am cycling and I am giving it all I got, I must look ridiculous to people, but in my mind, I'm not cycling for today – I'm cycling for tomorrow. I want there to be a tomorrow, and I want to go even faster tomorrow. So, that means I have to work really hard today.

That means two things: one, I'm getting the physical benefit of the exercise, but in my heart, I am fighting. I'm pushing back against this illness. I'm not letting it take without a fight and, from the spirit, I feel fulfilled. And advancing both your spirit and your musculature are just so essential for the years ahead. You need them both. [music fades out]

[bubbly electronic music] If you have Parkinson's, you need a community around you. There's only so much that doctors and researchers really know about this illness right now. There's more and more learned every day, but there's more questions, I think, than there are answers.

If you are the loved one of somebody with Parkinson's, this disease is trying to make them fade away. Whether it robs you of your dignity or integrity, your sense of balance or stability, whatever, a thousand cuts, it's trying to diminish them, minimize them. They need encouragement, not just somebody to cut their steak; they need somebody who knows when to say, "No, you do it. You continue to do it. I know you can do it so I'm going to let you struggle a little bit." Let them struggle. Know that there's a battle going on in them and they need help with the battle. They need you to come to their assistance, to encourage them to get out, to get active, and if you need help with this, find me or anybody like me who will be more than happy to help you with the task. [music continues then fades out]

Heather [12:27](#)

[upbeat electronic music] My guest today is Dr Lorraine Kalia, Neurologist and Senior Scientist at UHN's Krembil Brain Institute, and an associate professor at the University of Toronto. Dr. Kalia also holds the Wolfond-Krembil Chair in Parkinson's Disease Research and specializes in Parkinson's disease and related movement disorders at UHN's world-renowned Movement Disorders Clinic. [music continues then fades out]

Welcome to the podcast, Dr Kalia.

Dr Lorraine Kalia [12:59](#)

It's great to be with you today.

Heather [13:01](#)

I wanted to start off by asking about your patient, Steve, who we just heard from now. We heard a little bit about his story and his diagnosis and how much exercise has really changed his life, which he largely credits to you and your care. So, I wanted to just get your reaction.

Dr Lorraine Kalia [13:17](#)

Yeah, Steve is a remarkable case and, I mean, I appreciate that he attributes some of his successes to me, but really much of the success and benefit that he's been able to get from exercise is really on him. He's an amazingly motivated individual who took a piece of advice that I think I gave him early on his disease, when he was first diagnosed, and really took it to heart – not just to better himself, to get all the benefits that he could out of exercise, but has gone even further than that and really intends to play a role and has been a role model for other people with Parkinson's to just show them how far one can push oneself and how much exercise can actually really have a substantially positive impact on a person's disease course.

Heather [14:02](#)

Absolutely. He is such a role model and he also talks about the power of community, especially for people living with Parkinson's.

Dr Lorraine Kalia [14:09](#)

Yeah, and I think that exercise-- I know I will probably talk in more detail about the physiology behind it and some of the science behind it, but I think an important piece around exercise is also the community around it, and Steve's story is a great example of not only what one individual can get out of physical activity, but how one can build a community and all of the positive outcomes that come from being there for other people, supporting other people, getting the support from others, and kind of working towards a common cause. I think his story is a great example of that, as well.

Heather [14:46](#)

Absolutely. So, let's go back a step and just talk a little bit about the latest science. And, you know, what do we know currently about the benefit of exercise for people who are living with Parkinson's?

Dr Lorraine Kalia [14:56](#)

That's a great question, and it's an evolving area, and I think really an area that we're going to see a lot more and interesting research done in the upcoming years. We often think of exercise these days as a piece of the puzzle of treatment for people with Parkinson's, and I'll often tell people with Parkinson's, you know, "I might be prescribing you a medication, but I also want you to think of exercise as a medication that you need to take, as well."

Heather 15:20

Hmm.

And, with that, I think we also have to start looking at exercise the same way we do with drugs when we're studying them, so the way that we design clinical trials, the kinds of questions we ask, and also the rigour that we require of clinical trials to inform us about exercise. So, over the past several years, I mean, there's been a lot of small studies on exercise, but there have been these two really pivotal trials that have looked at high intensity, more aerobic exercise in a good number of people with Parkinson's disease – you know, over 100 people, so looking more like a clinical trial that we would do for a drug treatment and have really shown us some interesting results.

These are phase two trials that do suggest that, if you do aerobic, high-intensity exercise, that the change in your scores that we get when we test people's motor function actually declines slower. These are relatively short studies, I mean, over the course of, you know, six months to a year, which is a small amount of time in comparison to the full course of somebody's Parkinson's disease, but I think they're giving us the early indicators that there is really some substantial benefit to exercise for people with Parkinson's, and this is from studies.

And again, going back to Steve's story, I think, anecdotally, people like Steve, not necessarily want to exercise as much as Steve does, but even people who exercise less will anecdotally tell you how much better they feel when they exercise and how much they miss it and are aware of their symptoms when they have to take a break from it.

Heather 16:52

Mm-hmm. When it comes to Parkinson's patients, what types of exercise actually helped to have an impact on the symptoms that they're experiencing, and even the progression of the illness?

Dr Lorraine Kalia 17:02

Yeah, so the best evidence is for exercise that is aerobic and more high intensity, meaning that you actually get your heart rate up. So, that could be two kind of biggest studies that were done—one was done with stationary bike, and another was done with treadmill walking—and one can presume that probably other types of exercise—it doesn't have to be a treadmill and it doesn't have to be a stationary bike, but other types of exercise where you could actually get your heart rate up to a decent rate—would probably also have a similar impact.

Of course, those were the best studied scenarios. There's of course, other forms of exercise such as weight training and stretching and strengthening and balance and more complicated forms of exercise and physical activity like dance and Tai Chi, that probably still need better studies for us to really understand and to really parse out what kinds of benefits we can get with these types of different activities, which is why I go back to, I think we're really kind of early days in terms of understanding entirely what might just be a kind of treasure trove of types of therapies that people can participate in for Parkinson's disease outside of just the standard medications that we prescribe.

Heather 18:20

Right. I mean, exercise is beneficial for everyone. So, we're talking today about Parkinson's in particular, but some of the health benefits in dopamine, serotonin, the other things that are released that help us in our moods and everything else that can help in the recovery have to be beneficial overall.

Dr Lorraine Kalia 18:34

Completely. I completely agree and, you know, always, whenever I get prepared to talk about exercise and Parkinson's disease, I have to remember and remind myself that we should all be doing exercise, [Heather laughs] and, you know, there's the World Health Organization—WHO—guidelines as to the amount of exercise that we should be doing and, in reality, it's exactly the same for a person with Parkinson's. [gentle electronic music] They should be following these WHO guidelines just as you and I should be following these WHO guidelines, and outside of symptom improvement or even if there is some slowing of progression of Parkinson's disease that we think exercise might be providing, there's a whole other host of health benefits that are very well known.

So, you know, we know that it's good for muscle health, for bone health, for joint health. You know, it's good for mood. We know it can be good for cognition. It even reduces risk of cancer. I mean, it lowers your blood pressure. There's a myriad of reasons that we should all be exercising, but including people with Parkinson's disease. [music fades out]

Heather 19:35

Well, one of the interesting things that Steve talks about, too, is this fear that many patients with Parkinson's have of losing their balance, of falling or dropping things, you know, of what can happen once they exercise. So, what would be your advice to anyone listening today who may be living with that fear, but also, you know, interested in seeing what the benefits can do for them?

Dr Lorraine Kalia 19:52

It can be a bit of a vicious circle, right? So, I think that, by not participating in physical activity, then you put yourself at more risk of falls, you put yourself at more risk of worsening balance, you put yourself at more risk of declining in function, and so it does become very important that one recognizes that, yes, there are challenges that are in place, depending on how severe your Parkinson's symptoms are, and that, of course, being able to modify things so that one can actually participate in physical activity is an important consideration.

And I think the other important thing to always remind patients is that something is really better than nothing, and I think, sometimes, it can be a little bit overwhelming early in the disease or even when the disease progresses further and there are more challenges as to, "Well, it's difficult to fit exercise in the day," or, "What does that look like for me now?" But ultimately, I really think something is better than nothing.

And then, I also think, you know, Steve's example is a good one of "more is better", and so I think those are the general principles and doing things safely is really important, and often being, again, in a community of people who understand the disease so, whether it's an exercise program amongst others who also have Parkinson's or trainers who understand Parkinson's disease, becomes I think, an important piece.

And what's wonderful about the Parkinson's community is it's just growing in terms of the different kinds of activities that are out there, in person and, you know, I can tell you, even just this Monday, when I had clinic, I had a patient show me this online program that he's been following and what's available to him out of, you know, a city in Florida. [Heather laughs] He lives in Toronto, but does all of these exercises that are provided out of Florida, and so the virtual world has really provided some amazing opportunities, as well.

Heather 21:42

That's amazing. So, is it ever really too late in your diagnosis to consider getting on board with exercise?

Dr Lorraine Kalia 21:52

No, I don't think it's ever too late. The ideal scenario is that, when a diagnosis is given, that there's a lot of information to take in, but the messaging around exercise is started at that point in time. For people who are already exercisers, who know how to build exercise into their routine, it can often be quite easy and just some modifications—or maybe not even some modifications—to what they normally do.

I think the bigger challenge is for people who just have never found time for exercise in their life, and now it becomes, I think, really incredibly important for them to be able to do that. So, in the best case scenario, one starts those kinds of habits-- if they hadn't before their diagnosis of Parkinson's-- one starts that early after their diagnosis of Parkinson's. But it's really never too late, and so, even if it takes people a while to kind of wrap their mind around their diagnosis, to get on board with medications and to kind of make some lifestyle changes that I think need to be made with these chronic conditions, that then getting exercise into their schedule becomes important regardless of what stage of the disease that you're at.

And, as things progress, things have to change, just like we all have to change. I can't do the same kind of physical activity that I was able to do when I was 16. I think it's fair to say that [Heather laughs] and some modifications have to be made.

Heather 23:15

Right. As they do for all of us.

Dr Lorraine Kalia 23:16

Yes.

Heather 23:18

[upbeat electronic music] You know, on this podcast, we talk about neuroplasticity quite a lot and the ability of the brain to rewire and to relearn new things, and so I'm just curious, in the context of this, whether the neuroplasticity created from exercise and patients who are living with Parkinson's disease can actually outweigh the effects of neurodegeneration that they're experiencing. What do you think?

Dr Lorraine Kalia 23:40

I think it's a great question and neuroplasticity is such a loaded term. I mean, the brain is so complex and pathways and the way that circuits work are so plastic and changeable. I don't think that's been a well-studied area yet, in part, just because we don't have great tools to be able to see how pathways change in the human brain in these different contexts. But, in a very simple way, I think we know from laboratory studies of what kinds of significant changes can happen in the brain with exercise.

Some of the hypotheses are that exercise is able to release some growth factors in the brain, and so these brain cells that were going to die are actually supported and helped by growth factors to try and allow them to survive longer. [music fades out]

Heather 24:29

And is there any connection between exercise and the effectiveness of medication? Does exercise help improve the effectiveness of medication for Parkinson's?

Dr Lorraine Kalia [24:38](#)

Not typically. I mean, I think there's definitely a synergy between being on medication and exercise. I think that they are more than just the sum of the individual parts. But an interesting phenomenon that many people experience is that some people actually burn through their medication faster when they're exercising, and so we actually have to make medication adjustments, kind of give a little bit more dopamine to allow for the kind of high performance that some people require when they're doing exercise. And, in some of Steve's, you know, training and the kinds of things that he tries to achieve when he's training, we actually up his medications in some scenarios, as opposed to decrease his medications, which seems a little bit counterintuitive because, at the same time, he gets this great symptomatic benefit, but there's this kind of extra use that happens and then allows him to perform better.

And he's not the only one. I mean, I think most people who see patients with Parkinson's disease, they'll often describe days when they are doing their exercise and they just need, you know, an extra tablet of their Levodopa to actually be able to perform as they want to.

Heather [25:46](#)

So, someone might need more medication if they are increasing their level of exercise in order to stave off the progression of the disease.

Dr Lorraine Kalia [25:58](#)

People have reported needing more medication to be able to do their exercise routine. A lot of the science actually suggests that, when we're exercising, we're actually releasing dopamine from our brain, so I don't think I have a good explanation for it but it's clearly something that we observe in the clinic and maybe, in part, because the amount of physical activity that people are doing during exercise requires them to be able to be more agile than on kind of non-exercise activities and, as a consequence, are in need of more dopamine than what we would normally give them.

So, for example, if you're just walking, you could probably get away with maybe one tablet of Levodopa, but if you are having to actually be able to perform to the point of being able to cycle and bring your heart rate up to a high level, then it may be that you just need more medication for that.

Heather [26:59](#)

So, even though a patient may need more medication to deal with the level of exercise that they're doing, do the benefits of that exercise help them? Does it outweigh the risk?

Dr Lorraine Kalia [27:07](#)

[bubbly electronic music] Most definitely, and it's interesting that you asked that because sometimes in conversations with people who are just recently diagnosed and we're kind of trying to decide, "Is now the right time to start medication?", one of my arguments for people to actually start medication is if their symptoms are holding them back from being able to do a high level of exercise, because we know that the benefits of exercise are there and, if one's not able to actually participate in the high-intensity cycling or, you know, walking for many, many kilometres that, if they need the medication for that reason, that becomes a good motivator and an important factor to consider when people are deciding whether or not they need medication, because it's one thing to be able to function – you know, walk the

dog a little bit, do your daily chores and your daily functions without medication, but if you're not able to actually then partake in high-level activities which we know can be beneficial, then it's important, I think, to really weigh whether or not medication would be valuable for that. And, more times than not, I speak to patients and we weigh out the benefits and the side effects of medications, and I'd say one major benefit could be being able to partake in pickleball and tennis and golf, all of these things that maybe they've not been able to participate in because of their subtle and maybe mild Parkinson's symptoms.

Heather 28:28

Right because we, unfortunately, know that the disease is going to progress so, in your mind, as a neurologist, it makes more sense, potentially to take the medication earlier in the disease progression when you can do more and you can experience more benefit from it.

Dr Lorraine Kalia 28:40

Definitely. And it becomes a bit of a feed forward because, if you can actually do more physically, then you can get the benefits of the physical activity. Whereas, if you are limited because the disease is holding you back in being able to participate in these kinds of activities, then you don't get all of those benefits, those wonderful benefits that Steve's getting from his exercise. [music fades out]

Heather 29:01

Interesting. Okay, well looking at Steve's case, specifically, I mean, his is a very unique situation where he considers himself sort of an extreme enthusiast [chuckles] when it comes to cycling, in particular, but I mean, his level of exercise is quite high. So, for the average person who might be listening today, I mean, you know, what can they expect in terms of outcome and physical ability and how much exercise is too much?

Dr Lorraine Kalia 29:24

I'm not quite sure if there is a limit to exercise. So, you know, if we go back to the WHO guidelines, in terms of what we all should be doing, we should all be doing—and you don't have to tell me, Heather, if you do this amount of exercise [both laugh]—we should all be doing at least, like, 300 minutes of moderate amount of aerobic activity--

Heather 29:47

A week?

Dr Lorraine Kalia 29:47

Yeah, or 150 minutes of vigorous activity. And that's just the guidelines. I mean, kind of the bottom line of the guidelines is really you should even be doing more. [both laugh] And so, the WHO doesn't provide any minimums, and so I don't think there's a max. Of course, there's other things that you have to do in your life and there's only so many hours in the day, and so exercising to the extreme where you're not taking care of your own personal needs or not, you know, meeting other responsibilities that you need to in your life is clearly not beneficial.

But, I'd say the average person with Parkinson's who's able to, you know, engage in relatively routine physical activity, ideally, three to five days per week, most will describe feeling physically better, feeling that their Parkinson's disease symptoms are less, and feeling, in some cases, that their mood is better. And, you know, I think if we just all think to ourselves how we feel after a good workout and how well we sleep that night, these are all the same benefits that people experience with Parkinson's disease, but

perhaps just more amplified because of the symptoms that they're experiencing because of their disease.

Heather 30:58

Right. And those symptoms that go along with Parkinson's disease, in terms of some of the motor symptoms and some of the other symptoms, are those often helped by exercise? Do you see a difference in the patients that come to see you?

Dr Lorraine Kalia 31:12

Yeah, I mean, it's always hard to know in the individual patient because you never get the opportunity to see that patient who exercises in parallel with that same patient who doesn't exercise, and this is a changing disease and so this is again why, you know, research studies are required so that we can look at large numbers of people and look at averages.

[uplifting electronic music] I think many of us who see people with Parkinson's can think of the patients who are regular exercisers and those who have had very slow progression. But again, it's very hard, on the individual basis, because each person's trajectory is just different to begin with, and although we try and make our best guesses what a person's trajectory might look like, it's hard to know without being able to do that kind of controlled study where you could see a person over a chunk of time with exercise and over the same kind of chunk of time without exercise.

Heather 32:02

Right. So, when it comes to the science, it's still early days, but promising, in your mind.

Dr Lorraine Kalia 32:07

For sure, for sure. If you look at the way that we measure change and benefit with drugs in clinical trials, we basically give scores to the way that people move, and these early clinical trials that looked at a larger number of people who exercise use the same kind of measures. If I had a drug that had that kind of benefit, I would be quite pleased with its outcome, and so I think that there's a lot of positivity and a lot of good signal from these early studies to say that what people are doing with exercise is right and that we have to actually study it more to understand more things like, "What is the actual dose that people should be getting?" Are there specific types of exercises that are more beneficial than others?" We're not at the stage where we can kind of examine one exercise versus another versus another versus another, and I think it's probably fair to say, just like medications and Parkinson's disease, that is not going to be a one-size-fits-all, and that there's probably going to be a variety of different combinations for a variety different people that are going to be the kind of right combination for them. [music fades out]

Heather 33:14

And so, bottom line, Dr. Kalia, what should people listening today take away? What do you want them to know?

Dr Lorraine Kalia 33:20

So, I guess this kind of goes back to what we were talking about a little bit earlier in terms of how just exercise is good in general. You know, we talked a lot about how exercise is important. [up-tempo electronic music] I look forward to the day when I don't have to give a person a diagnosis of Parkinson's disease. But, as I still do have to do that, I often try and look for a silver lining, and I think the silver lining here—and I think Steve's an amazing example of that—is that, with a diagnosis of Parkinson's disease,

one can actually take that and use it as a motivator and use it as a guidepost and a reminder of how important self-care is, and exercise as part of that.

And so, I think, if people can use that as a way to allow them to find time to, you know, exercise with intention, and to build that into their day-to-day, I just think that it's going to overall be such a beneficial thing, not just for Parkinson's disease, but just for their overall health and wellbeing. And so, I think taking that kind of lemon and turning it into lemonade is really what I hope people will take away from this. [music fades out]

Heather [34:25](#)

It's really important. You know, just before we go, there's a neighbour of my mother's in Windsor where I'm from. His name is Bob and he's been living with Parkinson's for the last few years. [light electronic music] Rain or shine or snow or hail, Bob is out walking his several kilometres a day and, you know, I haven't seen a lot of progression in his illness and I think it has to be due to the level of exercise and his just plain resilience. So, I just want to give a huge shout out to Bob who has really been exercising and living well with Parkinson's, and all of the patients that you see Dr. Kalia, this is a great message for them today and it's hopeful. And it's really good advice for everybody to really incorporate exercise however they can into their lives, but especially for those living with Parkinson's. So, thank you so much for joining me today.

Dr Lorraine Kalia [35:08](#)

Thanks for having me. [music continues]

Steve Iseman [35:14](#)

When I meet people who are newly diagnosed, I like to get a sense of where their head's at, and I do that by asking them a very bizarre question. I ask them how Parkinson's has improved their life, and a number of people, predictably, will think that's a ridiculous question. A surprisingly large number of people will respond to that question, saying, "Well, I'll tell you how it's improved my life..." and rattle off a couple of things. And that's my new best friend. [music continues then fades out]

Heather [35:55](#)

[upbeat electronic music] Thank you so much to Dr. Lorraine Kalia for joining me on the podcast today and to Steve Iseman for sharing his truly inspiring story. If you'd like to hear more about Steve's Parkinson's journey and his quest to help others live a more active and fulfilling life, head to our website, uhn.ca/krembil, and click on the show notes for today's episode. You can also check out Steve's website for more information on upcoming events at spinningwheelstour.ca.

[music continues] This episode of Your Complex Brain was produced by Jessica Schmidt. Dr. Amy Ma is our executive producer. Thanks also to Kim Perry, Meagan Anderi, Sara Yuan, Liz Chapman, and Lorna Gilfedder for their production assistance.

[music continues] If you enjoyed this episode of Your Complex Brain, please tell your family and friends, and don't forget to leave a rating and review on your favourite podcast listening app. We'll be back in two weeks with another exciting episode. Have a great day. [music continues then ends]